

## **Background Description and Learning Experience**

The Cincinnati Health Department (CHD) is extremely interested in building its local environmental public health tracking capacity in the areas of health outcomes, environmental hazards and human exposures by collaborating with the CDC National Environmental Health Tracking Program as well as with partners at the city, county, state, and national level. CHD commits to adopting the use of existing Tracking/PHIN standards and specifications referred to in recipient activities, and development of specifications with environmental health tracking partners and standards-setting organizations. This effort will help obtain integrated health and environmental data that will present the data in a standardized formation that will allow it to be used in support of actions that improve the health for the community.

### **Host State Site Visit – March 2011**

#### *Summary*

In March, two members of the CHD EPHT committee visited New York City to gain insight on how a city tracking network was created. The New York City Health Department presented on several topics including:

- Overview of NYC BESP Tracking
- The Indicator Tool Demonstration
- The NYCCAS Community Air Study
- Demonstration of the NYC Portal
- CO and PCC Data
- NCDMS and Local Indicators for Birth Outcomes
- Secure and Non-secure Portal Access
- Metadata Creation and Tool
- Outreach Activities
- Policy Development
- Data Collection Projects (Hg, Pesticides, and Asthma)

#### *Lessons Learned*

Although every presentation was very informative, we really appreciated the Lessons Learned session. New York City highlighted four valuable concepts that we should consider before and during creation of the portal. Specifically, they suggested that we integrate tracking into our agency's mission, that we go for the low hanging fruit, that we build relationships around a shared vision and mutual advantage, and that we take into account the appearance of website. We also liked their quick facts section of the portal and decided to model our project portal after their design.

The Cincinnati Health Department collects data from multiple departments including environmental nuisance complaints, food inspections, and clinical lab data, acute and chronic disease data, and vital statistics data. The EPHT committee evaluated each database system to identify which data source would be the best to use for the pilot project. After visiting New York City, it was decided to further narrow the scope of the project as we recognized the benefits of low hanging fruit selection and building relationships around a shared vision and mutual advantage. Therefore only the information from birth certificates would be used in the

preparation of the Cincinnati Health Departments Environmental Public Health Tracking sample portal.

*Members of the EPHT committee also attended the National Environmental Public Health Tracking Conference in New York City, April 2011.*

## **Pilot Project**

### **Overview**

As an ASTHO fellow, the Cincinnati Health Department agreed to complete a pilot project that would display vital statistics data. The CHD pilot project will encourage data sharing between the CHD Vital Records Department, City of Cincinnati Information Technology Centers, and the Ohio Department of Health by working with internal programs as well as external database managers to reformat the data for presentation through the NEPHT portals.

### **Benefits and Significance to Cincinnati and EPHTN**

The long term goal of the project is to compare maternal, child health, vital statistics and chronic disease data between neighborhoods or neighborhood groupings, and identify patterns ascribed to infant mortality, cancer, asthma and other chronic diseases. This project may form the basis for linking geographic data on exposures to environmental hazards to maternal, child health, and chronic disease data and for encouraging data sharing among data stewards by working with internal programs as well as external database managers to reformat the data for presentation through the NEPHT portals. The project aims to ensure equity in health service delivery and equitable protection of the Cincinnati population.

### **Methods and Strategy**

The Environmental Public Health Tracking committee met weekly to discuss tracking activities. The pilot tracking project activities included:

1. Evaluating the CHD database
2. Assessing Data Building, Sharing and Confidentiality
3. Researching Legal Aspects including Statutes and/or Rules
4. Analyzing Compatibility of Data with the National Environmental Public Health Tracking website

#### **Evaluate CHD Database and visit host tracking state: January, 2011 – March, 2011**

After visiting a host tracking state approved by the Health Commissioner to acquire a better understanding of the tracking portal, the CHD will first assess the existing Vital Records data system. An inventory of maternal and child health, and chronic disease data will be collected and filtered by RCC. Some examples of the information that will be addressed are listed below.

1. Total number of births
2. Total number of births of Cincinnati Residents
3. Total number of births for Kentucky, Indiana, and for country resident's
4. Births/1,000 (fertility rate)
5. Mother's over the age of 40 years old

6. Teen mother's ages 15-19
7. Total number of multiple births
8. Total number of births with prenatal care
9. Total number of births with father's on the certificate
10. Total number of our facility births comparing the last three years
11. Multiple births compared to the neighborhoods
12. Low birth weight < 2500 grams by neighborhood and income
13. Low birth weight by race/ethnicity
14. Low birth weight by trimester
15. Low birth weight by mother's age (14-19, 20-39, 40+)
16. Babies gestational age by mother's age (14-19, 20-39, 40+)
17. Babies gestational age by neighborhood
18. Mother's first birth by mother's age (14-19, 20-39, 40+)
19. Multiple births
20. % mothers smoking, using alcohol
21. Child spacing
22. Educational attainment of the mother and birth characteristic (see below)
23. Smoked during pregnancy
24. WIC
25. Death by cancer broken down by type

#### Data Building, Sharing and Confidentiality, February, 2011 –April, 2011

The Cincinnati Health Department created an Environmental Public Health Tracking portal based on vital statistics data. The website showcases information about the total number of births of Cincinnati residents, low birth weight data, maternal risk and health outcome data, as well as fun facts about city residents including most popular names and Cincinnati neighborhoods with the highest number of births. A manual was created to document how the portal was developed including the data management, formatting, and network access. To view the portal, please visit [http://www.cincinnati-oh.gov/noncms/health/epht/fast\\_facts.cfm](http://www.cincinnati-oh.gov/noncms/health/epht/fast_facts.cfm)

The EPHT committee has presented the portal to CHD administration and plans to present it to the Board of Health. After approval from the Board of Health, the committee will present the portal to the Greater Cincinnati medical community, CHD business collaborators, and local community advocates.

#### Legal Aspects, Statutes, or Rules

1. Review Ohio Revised Code “Sunshine Laws” and Existing Data Sharing and Data Transfer Agreement Templates. The Ohio Public Records laws govern the right to request a public record. These laws will be reviewed with City Law Department to uncover possible areas of confidentiality within the birth and mortality datasets.
2. Review Existing Data Sharing and Transfer Agreement Templates. For Non-Government and Government Academic Institution Collaboration, existing data sharing and transfer agreement templates of the State of Ohio, HIPPA, and the Cincinnati Health Department and those of New York City EPHT will be reviewed for relevance to our needs for the purpose of web portal development and data sharing requests.

The EPHT committee consulted with Allison Davidson, City Attorney, to discuss possible legal barriers and limitations. It was determined that according to Freedom of Information Act (FOIA),

Cincinnati is required to release information requested by the public. Therefore, in creating the portal we must define the difference between public and private access as well as evaluate if restrictions could be offered. Additionally, the EPHT Committee reviewed several data sharing agreements. Although, the CHD has a HIPPA data sharing agreement, the committee reviewed several others to identify the one that most suited our needs. As a result, we have decided to create a data sharing agreement form with the assistance of the City Attorney.

### Compatibility of Data

1. National Environment Public Health Compatibility Standards. The Standards will be reviewed in detail prior to the end of the Fellowship by member representatives from CITCO, Health Promotions, Environmental Health, Planning and Evaluation and Vital Records who staff the EPHT team at the CHD. A foundational knowledge of the Standards at this early stage of development will ensure that the development of the web portal will be aligned with existing and future National EPHT efforts.
2. Geo-Coding Datasets. Birth and mortality datasets will be geo-coded which will require cleaning dataset addresses and other information for internal integrity.

The EPHT committee reviewed the compatibility standards. Sean Ware, Regional Computer Center Computer Analyst concluded that the CHD has the capability to align with the CDC National Standards. The birth data for the pilot project was geo-coded with the assistance of CAGIS.

### Conclusion and Next Steps

Our goal at the completion of the project was to be able to compare mortality data by chronic disease between and birth data characteristics by neighborhoods and the City as a whole. However, we learned that we really needed to streamline the project and focus on understanding internal dynamics before expanding to include external databases. Originally the fellowship was written to include data from the Cincinnati Health Department Vital Statistics Department, Hamilton County Air Quality Division, and the Ohio Department of Health Cancer Division. Upon recommendations from ASTHO we narrowed the focus to vital statistics data which included both birth and death records. But after further discussions and visiting our host site and attending the National Conference, it was found that we needed to further narrow the scope to include only birth data. While at the Conference, I attended one of each focus group session. From this experience I understood that it takes significant time to analyze every facet of the indicators as it relates to portal infrastructure and that in order to have a successful portal that will sustain a solid vision must be sculpted from the beginning. Therefore, our limitations involved needing more resources, time, and additional information to include external collaborators.

Plans for future tracking activities include finding available funding that will assist us in further developing the web portal. From our first steps to realizing a pilot portal, and the site visit to NYC, it is apparent that significant resources will be required to meet our plan to fully develop a portal that satisfies CDC standardized data reports and facilitate the planning, evaluation, and research activities inside of CHD and to provide the data resources for researchers, and community groups. Additionally we must create a full plan to differentiate between situations that will require secure data links as well as identify where data sharing agreements are appropriate. However, we are committed to reaching our long-term goal of having a fully

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operational public health tracking network and we will continue to look for funding, become increasingly more knowledgeable about tracking procedures, and network/ collaborate with other agencies to provide the most robust tracking system in Ohio.

The Cincinnati Health Department is extremely grateful that we were allowed the opportunity to go to the National Environmental Public Health Tracking Conference as well as visit New York City. Both experiences were necessary to gain a complete understanding of the tracking program in its entirety. As we move forward we plan to apply the knowledge that we've learned from this experience.